



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
PO Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/834,420      | 04/13/2001  | Andreas Topp         | 64251-027           | 5918             |

7590 06/26/2003

HUSCH & EPPENBERGER, LLC  
401 Main Street, Suite 1400  
Peoria, IL 61602

EXAMINER

HARLAN, ROBERT D

ART UNIT

PAPER NUMBER

1713

DATE MAILED: 06/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                              |                  |
|------------------------------|------------------------------|------------------|
| <b>Office Action Summary</b> | Application No.              | Applicant(s)     |
|                              | 09/834,420                   | TOPP ET AL.      |
|                              | Examiner<br>Robert D. Harlan | Art Unit<br>1713 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 23 May 2003.

2a) This action is FINAL.                  2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-5,9-14,18-22,24-36 and 38-42 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-5,9-14,18-22,24 and 38-42 is/are rejected.

7) Claim(s) 25-36 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

|  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ .                                   |

**DETAILED ACTION**

1. The Amendment filed by Applicant on 05/23/02 has been entered.
2. Claims 6-9, 15-17, 23 and 37 have been canceled.

***Response to Amendment/Arguments***

3. Applicant's amendment and arguments filed on 05/23/02 have been fully considered and they are found persuasive.
4. The rejection of claims 1-42 under 35 U.S.C. 102(b) as being anticipated by Drake et al., U.S. Patent No. 5,300,569 (hereinafter "Drake") is withdrawn.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. The following claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to

particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. In claim 1 the Markush group detailing the selection of the functional groups of the deposited polymer is improper. In Claim 1, the Applicants recite "thiol groups, mercapto groups, silanes, amines, monothiols" but later recites more specific silanes and mercapto groups. This is an example of an alternative expression reciting a double inclusion.

While the concept that double inclusion of an element in members of a Markush group recited in a claim is, per se, objectionable and renders a claim indefinite is supported by some of the older cases like Ex parte White, 759 O.G. 783 (Bd. App. 1958) and Ex parte Clark, 174 USPQ 40 (Bd. App. 1971), other decisions clearly hold that there is no per se rule of indefiniteness concerning overlapping members where alternatives are recited in a claim, e.g., members of a Markush group. In re Kelly, 305 F.2d 909, 134 USPQ 397 (CCPA 1962).

The facts in each case must be evaluated to determine whether or not the multiple inclusion of one or more elements in a claim gives rise to indefiniteness in that claim. The mere fact that a compound may be embraced by more than one member of a Markush group recited in the claim does not lead to any uncertainty as to the scope of that claim for either examination or infringement purposes. On the other hand, where a claim directed to a device can be read to include the same element twice, the claim may be indefinite. Ex parte Kristensen, 10 USPQ2d 1701 (Bd. Pat. App. & Inter. 1989).

Art Unit: 1713

See MPEP 2173.05(o). Therefore, by viewing the double inclusion rather conservatively, the Examiner requests an appropriate correction or an explanation why such expression is needed.

Also, the Applicants use of "," and ";" are confusing. What isn't a ";" used in "-PO<sub>3</sub>H<sub>2</sub>, -SO<sub>2</sub>H."

Applicants state "n is the ligand number" (claims 1 and 22). What does "ligand number" mean?

"Whereby M is" should be replaced with --wherein M is-- and R' should be placed closer to formula -M(OR')<sub>n</sub>.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

9. Claims 1-5, 9-14, 18-21 and 24 are rejected under 35 U.S.C. 102(a) as being anticipated by Roseboom et al., U.S. Patent No. 5,882,799 (hereinafter "Roseboom"). Roseboom teaches polymeric coupling agents acting as adhesive which incorporate within their structures polymer backbones, and, bonded to the

Art Unit: 1713

backbone as pendant groups, co-vulcanizable groups and chelating groups. See Roseboom, col. 1, lines 7-12. The coupling agents can be applied in solvents such as water, ethanol (organic). See Roseboom, col. 1, lines 50-67. The chelating groups bonded to the polymeric backbone of the coupling agent include amines and the co-vulcanizable groups include alkenyl groups and epoxide groups. See Roseboom, col. 3, line 25 through col. 4, line 30. In Example 2, Roseboom describe adhesion-testing procedures that involves vulcanization, which like create a layer of skim. Further in Table 7 and Example 5, Roseboom discloses the use of stainless steel alloy and EPMD rubber. With respect to the adhesion promoter of the claimed invention, Roseboom polymeric coupling agents serve as adhesive promoter and are species of general formula (I). Claims 38-42 are directed at in uses; however, the end use product is made entirely of the composition according to claim 1. Although Roseboom is silent on the end use, Roseboom teaches the composition. Thus, Roseboom anticipates claims 1-5, 9-14, 18-21, 24 and 38-42.

Art Unit: 1713

***Allowable Subject Matter/Reasons for Allowance***

10. Claim 22 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

11. Claims 25-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Roseboom does not teach the heteroaromatic system.

12. As of the date of this non-final office action, the Examiner has not located or identified any reference that can be used singularly or in combination with another reference including Roseboom to render the present invention anticipated or obvious to one of ordinary skill in the art.

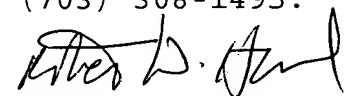
13. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Conclusion**

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert D. Harlan whose telephone number is (703) 306-5926. The examiner can normally be reached on Mon-Fri, 10 AM - 8 PM.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9559 for regular communications and (703) 872-9559 for After Final communications.

16. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1495.

  
Robert D. Harlan  
Primary Examiner  
Art Unit 1713

rdh  
June 19, 2003